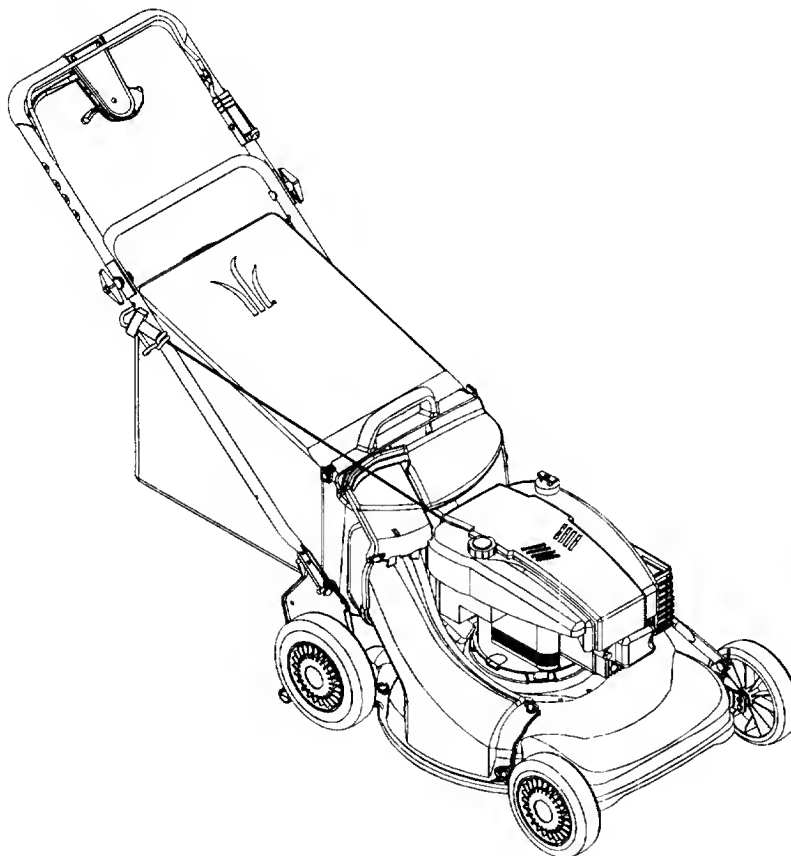




OPERATOR'S MANUAL



Model Number
12A-979L401



IMPORTANT: Read safety rules and instructions carefully before operating equipment.

Warning: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 368022 Cleveland, Ohio 44136-9722.

MTD PRODUCTS INC. P.O. BOX 368022 CLEVELAND, OHIO 44136-9722

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FINDING MODEL NUMBER

This Operator's Manual is an important part of your new lawn mower. It will help you assemble, prepare and maintain the unit for best performance. Please read and understand what it says.




Before you start assembling your new equipment, please locate the model plate on the equipment and copy the information from it in the space provided below. The information on the model plate is very important if you need help from our Customer Support Department or an authorized dealer.

- You can locate the model number by looking down at the rear of the deck. A sample model plate is explained below. For future reference, please copy the model number and the serial number of the equipment in the space below.

(Model Number)

(Serial Number)

**MTD PRODUCTS INC**
CLEVELAND, OHIO 44136

Copy the model number here: _____

Copy the serial number here: _____

CALLING CUSTOMER SUPPORT

If you have difficulty assembling this product or have any questions regarding the controls, operation or maintenance of this unit, please call the Customer Support Department.



Call **1- (330) 220-4MTD (4683)** or **1- (800)-800-7310** to reach a Customer Support representative. Please have your unit's model number and serial number ready when you call. See previous section to locate this information. You will be asked to enter the serial number in order to process your call .

SECTION 1: MAINTAINING SAFETY



This Warning symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate your lawn mower. Failure to comply with these instructions may result in personal injury. When you see this symbol, heed its warning.

DANGER: Your lawn mower was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This lawn mower is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

WARNING: The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

General Operation

- Read, understand, and follow all instructions in the operator's manual and on the machine before starting. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- Only allow responsible individuals familiar with the instructions to operate the machine. Know controls and how to stop the machine quickly.
- Do not put hands or feet under cutting deck or near rotating parts.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade. A small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander. To help avoid a thrown objects injury, keep children, bystanders and helpers at least 75 feet from the mower while it is in operation. Always wear safety glasses or safety goggles during operation or while performing an adjustment or repair, to protect eyes from foreign objects. Stop the blade(s) when crossing gravel drives, walks or roads.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers.
- Disengage blade(s) before shifting into reverse and backing up. Always look down and behind before and while backing.
- Be aware of the mower and attachment discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the chute guard in place.
- Slow down before turning. Operate the machine smoothly. Avoid erratic operation and excessive speed.
- Never leave a running machine unattended. Always turn off blade(s), place transmission in neutral, set park brake, stop engine and remove key before dismounting.
- Turn off blade(s) when not mowing.
- Stop engine and wait until blade(s) comes to a complete stop before (a) removing grass catcher or unclogging chute, or (b) making any repairs, adjusting or removing any grass or debris.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck. This unit should not be driven up or down a ramp onto a trailer or truck under power, because the unit could tip over, causing serious personal injury. The unit must be pushed manually on a ramp to load or unload properly.
- Never make a cutting height adjustment while engine is running if the operator must dismount to do so.
- Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals, or sneakers.
- Check overhead clearance carefully before driving under power lines, wires, bridges or low hanging tree branches, before entering or leaving buildings, or in any other situation where the operator may be struck or pulled from the unit, which could result in serious injury.
- Disengage all attachment clutches, thoroughly depress the brake pedal, and shift into neutral before attempting to start engine.
- Your mower is designed to cut normal residential grass of a height no more than 10". Do not attempt to mow through unusually tall, dry grass (e.g., pasture) or piles of dry leaves. Debris may build up on the mower deck or contact the engine exhaust presenting a potential fire hazard.
- Slope Operation
- Slopes are a major factor related to loss of control and tip-over accidents which can result in severe injury or death. All slopes require extra caution. If you cannot back up a slope or feel uneasy on it, do not mow it.

- For your safety, use the slope gauge included as part of this manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.

Do:

- Mow up and down slopes, not across.
- Remove obstacles such as rocks, limbs, etc.
- Watch for holes, ruts or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low enough gear so that you will not have to stop or shift while on the slope. Always keep machine in gear when going down slopes to take advantage of engine braking action.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments. These can change the stability of the machine.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction. Rapid engagement or braking could cause the front of the machine to lift and rapidly flip over backwards which could cause serious injury.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blade(s) and proceed slowly straight down the slope.

Do Not:

- Do not turn on slopes unless necessary; then, turn slowly and gradually downhill, if possible.
- Do not mow near drop-offs, ditches or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- Do not mow on wet grass. Reduced traction could cause sliding.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not use grass catcher on steep slopes.

Children

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.

- Keep children out of the mowing area and in watchful care of an adult other than the operator.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Never carry children, even with the blades off. They may fall off and be seriously injured or interfere with the safe machine operation.

- Never allow children under 14 years old to operate the machine. Children 14 years and over should only operate machine under close parental supervision and proper instruction.
- Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure your vision of a child or other hazard.
- Remove key when machine is unattended to prevent unauthorized operation.

Service

- Use extreme care in handling gasoline and other fuels. They are extremely flammable and the vapors are explosive.
- Use only an approved container.
- Never remove fuel cap or add fuel with the engine running. Allow engine to cool at least two minutes before refueling.
- Replace fuel cap securely and wipe off any spilled fuel before starting the engine as it may cause a fire or explosion.
- Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- Never refuel the machine indoors because fuel vapors will accumulate in the area.
- Never store the fuel container or machine inside where there is an open flame or spark, such as a gas hot water heater, space heater or furnace.
- Never run a machine inside a closed area.
- To reduce fire hazard, keep the machine free of grass, leaves or other debris build-up. Clean up oil or fuel spillage. Allow machine to cool at least 5 minutes before storing.
- Before cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the spark plug to prevent accidental starting.
- Check the blade and engine mounting bolts at frequent intervals for proper tightness. Also, visually inspect blade for damage (e.g., excessive wear, bent, cracked). Replace with blade which meets original equipment specifications.
- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- Never tamper with safety devices. Check their proper operation regularly. Use all guards as instructed in this manual.
- After striking a foreign object, stop the engine, remove the wire from the spark plug and thoroughly inspect the mower for any damage. Repair the damage before restarting and operating the mower.
- Grass catcher components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. For your safety protection, frequently check components and replace with manufacturer's recommended parts when necessary.

- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves and use extra caution when servicing blade(s).
- Check brake operation frequently. Adjust and service as required.
- Muffler, engine and belt guards become hot during operation and can cause a burn. Allow to cool down before touching.
- Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
- Observe proper disposal laws and regulations. Improper disposal of fluids and materials can harm the environment and the ecology.
- Prior to disposal, determine the proper method to dispose of waste from your local Environmental Protection Agency. Recycling centers are established to properly dispose of materials in an environmentally safe fashion.
- Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them. Properly dispose of the containers immediately following the draining of fluids.
- DO NOT pour oil or other fluids into the ground, down a drain or into a stream, pond, lake or other body of water. Observe Environmental Protection Agency regulations when disposing of oil, fuel, coolant, brake fluid, filters, batteries, tires and other harmful waste.

Your Responsibility



Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine. **Some of the safety labels on the equipment are reproduced below.** Take a moment to study these labels before operating the unit. Always maintain safety while operating or servicing the equipment.



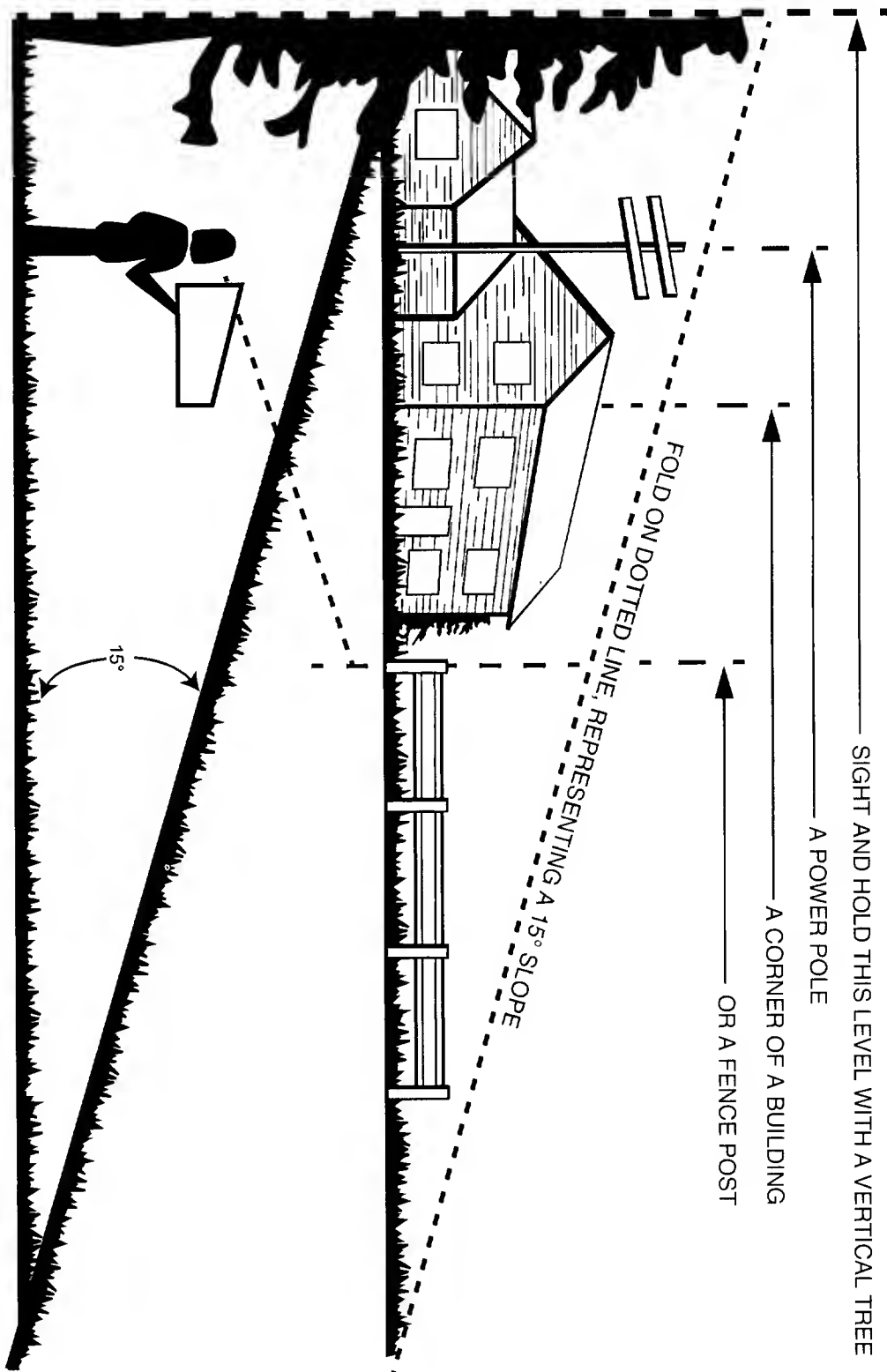
SECTION 2: SLOPE GAUGE

Use this page as a guide to determine slopes where you may not operate safely. **Do not operate** your lawn mower on such slopes.

Do not mow on inclines with a slope in excess of 15 degrees (a rise of approximately 2-1/2 feet every 10 feet). A riding mower could overturn and cause serious injury. If operating a walk-behind mower on such a slope, it is extremely difficult to maintain your footing and you could slip, resulting in serious injury.

Operate RIDING mowers up and down slopes, never across the face of slopes.

Operate WALK-BEHIND mowers across the face of slopes, never up and down slopes.



SECTION 3: ASSEMBLING YOUR LAWN MOWER

IMPORTANT: This unit is shipped without gasoline or oil in the engine. Be certain to service engine with gasoline and oil as instructed in the separate engine manual before operating your mower.

NOTE: Reference to right or left hand side of the mower is observed from the operating position.

Removing Unit From Carton

- Remove staples, break glue on top flaps, or cut tape at carton end and peel along top flap to open carton.
- Remove loose parts if included with unit (i.e., operator's manual, oil, etc.)
- Cut along corners, lay carton down flat, and remove packing material.
- Roll or slide unit out of carton and check carton thoroughly for loose parts.

Disconnecting Spark Plug Wire

- Before setting up your lawn mower, disconnect the spark plug wire from the spark plug and ground to a bolt on the engine. See Figure 1.

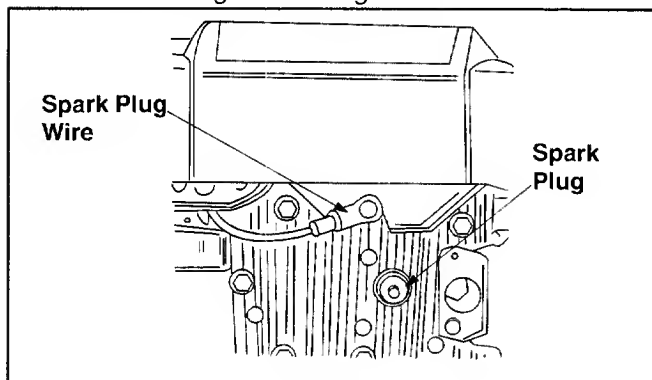


Figure 1

Setting Up Your Lawn Mower

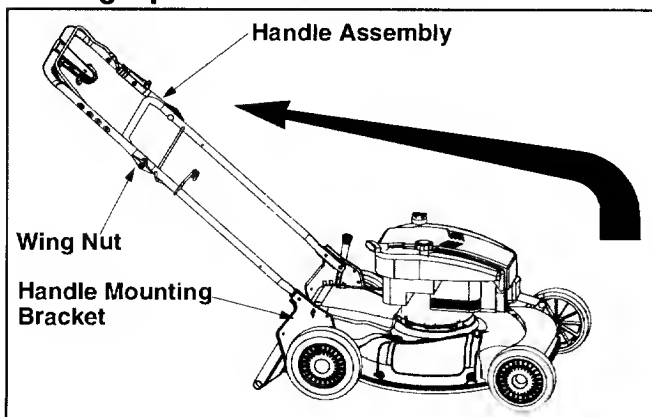


Figure 2

- Remove grass bag from unit and set it aside.
- Lift up and pull back on the upper handle to raise the handle into the operating position. Make certain the lower handle is seated securely into the handle mounting brackets. Tighten the wing nuts on each side of the handle (carriage bolts must be seated properly into the handle) See Figure 2.

NOTE: Your mower is shipped with the handle in the higher height position. If you wish to lower the height of the handle, refer to the Adjustment Section at this time.

- Remove the hairpin clips from the outer hole in the weld pins on the handle mounting brackets. Using a pair of pliers, squeeze one leg of the lower handle against the handle mounting bracket. Insert the hairpin clip into the inner hole on the weld pin. Repeat on other side. See Figure 3.

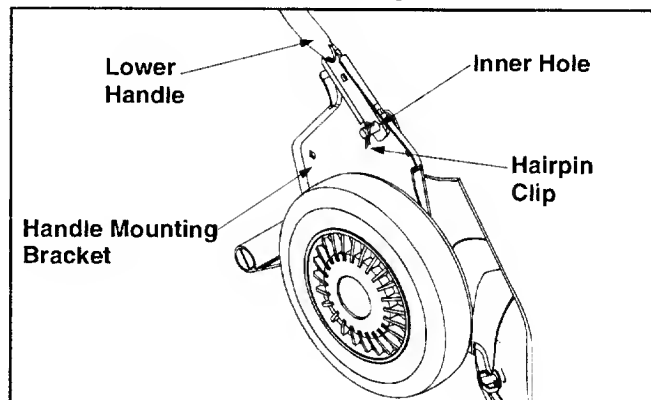


Figure 3

- Fasten the cables to the lower handle with the two cable ties found on the lower handle. Be sure to insert the post on the cable ties into the holes provided on the lower handle. These holes may be found on either the inside or outside of the handles. Pull the cable ties tight and trim off the excess. See Figure 4.

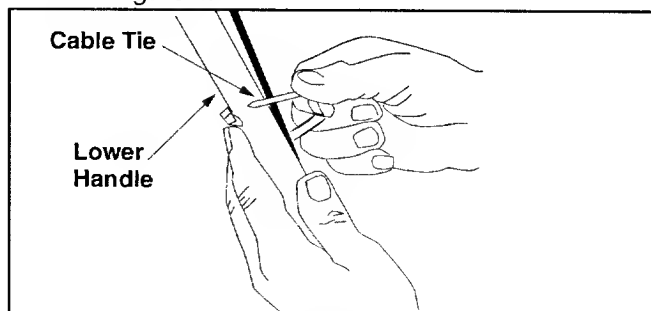


Figure 4

NOTE: Make certain the drive cable is routed around the outside and above the lower handle so it does not interfere with attaching the grass bag.

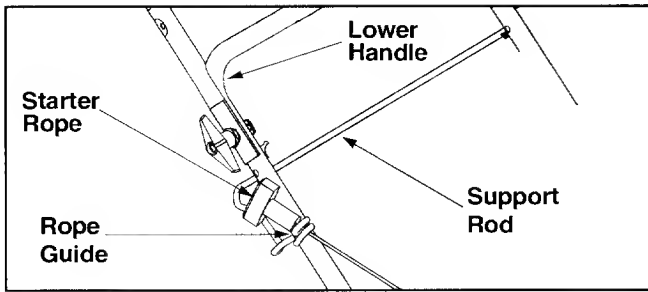


Figure 5

- The rope guide, which is connected to the support rod, is located on the right side of lower handle. See Figure 5.
- With the spark plug wire disconnected and grounded, hold the blade control handle against the upper handle, and pull the starter rope out of the engine. Release the blade control handle. Slip the starter rope into the rope guide.

SECTION 4: KNOW YOUR LAWN MOWER

Read this operator's manual and safety rules before operating your lawn mower. Compare the illustrations in Figure 6 with your lawn mower to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.



WARNING: The operation of any lawn mower can result in foreign objects being thrown into the operator's eyes and causing severe eye damage. Always wear safety glasses while operating the mower, or while performing any adjustments or repairs on it.

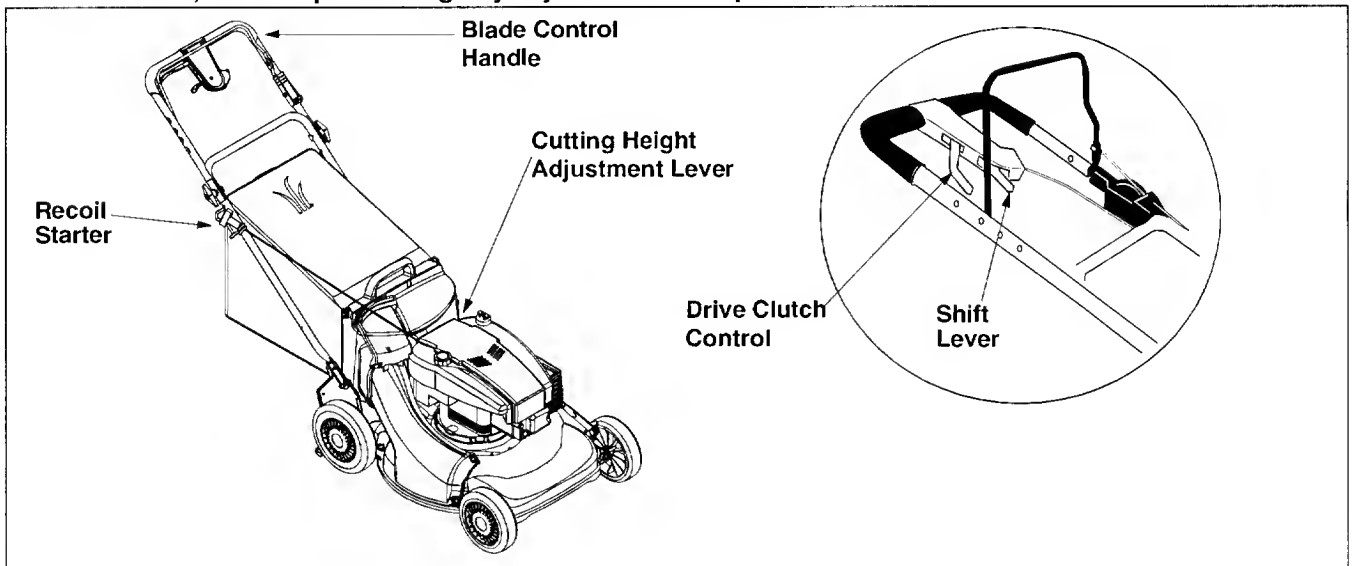


Figure 6

Recoil Starter

The recoil starter is attached to the right lower handle. Stand behind the unit and pull the recoil starter to start the unit. See Figure 6.

Blade Control Handle

The blade control handle is located on the upper handle of the mower. The blade control handle must be depressed in order to operate the unit. Release blade control handle to stop engine and blade. See Figure 6.



WARNING: This blade control mechanism is a safety device. Never attempt to bypass its operations.

Cutting Height Adjustment Lever

The cutting height adjustment lever is located above the left rear wheel. To adjust the cutting height, refer to the Adjustment Section in this manual. See Figure 6.

Drive Clutch Control

The drive clutch control is located on the upper handle. Squeeze the drive control to engage the drive system. Release the clutch control to disengage the drive system. Release the clutch control to slow down when approaching an obstacle, making a turn, or stopping. See Figure 6.

Shift Lever

The shift lever is located on the drive clutch control housing on the upper handle. This lever is used to select the forward speed of the mower. When changing speed selection, release the drive clutch control. See Figure 6.

NOTE: Move the shift lever only when the engine is running. Changing the shift lever setting with the engine off can cause damage to the mower.

Engine Controls

See the separate engine manual for the location and function of the controls on the engine.

Stopping Engine

- Release blade control handle to stop the engine and the blade.

- Disconnect spark plug wire and ground it to the post on the engine.



WARNING: Before using your lawn mower, again refer to the Safety Section in this manual. Always be careful.

SECTION 5: OPERATING YOUR LAWN MOWER

Towards Better Mower Performance

1. Read this manual in its entirety before you start the lawn mower. Instructions given here have been designed for maintaining safety while getting the best performance from your mower. Follow the instructions closely.
2. Pour fresh, clean gasoline into the mower's gas tank until the tank is full. Do not use gasoline that is more than 30 days old.
3. Always use a fuel stabilizer. It will double the life of the gasoline used.
4. Make sure to connect the mower's spark plug wire before trying to start the engine.
5. Add engine oil to the oil fill on the mower engine. Check the dipstick and add more if necessary. Remember that the oil level has to touch the fill line.
6. Locate the primer decal near the primer bulb on the engine, and read its instruction. Using your thumb, press the primer bulb slowly as many times as the decal advises.
7. Hold control handle down and pull rope firmly to start the engine.
8. Set cutting height adjustment lever to middle setting and mow a single pass on your lawn; then adjust to desired height for a closer cut.
9. When bagging the grass clippings, remove mulch plug/cover and store.
10. When mulching, remove the grass bag and store. Insert the mulch plug/cover on the mower.
11. In heavy growing season, it may be necessary to mow lawn twice weekly. Clumps of grass clippings left behind on the lawn usually means that the grass is too high to mulch.
12. Before storing the lawn mower for the winter, use stabilizer-treated fuel and run the tank dry.
13. Thirty days before start of the new season, check the air filter, spark plug and blade on the lawn mower, and replace if needed.

For more details about proper lawn care, visit our website at www.Yardman.com



WARNING: Keep hands and feet away from chute area on the cutting deck. The operation of any lawn mower can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields.

NOTE: For shipping purposes your mower is set with the wheels in a low cutting height position. For best results raise the cutting position until it is determine which height is best for your lawn. See the adjustment section for details.

Gas and Oil Fill-Up

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your mower. Read instructions carefully.



WARNING: Never fill fuel tank indoors with engine running or until the engine has been allowed to cool for at least two minutes after running.

Before Starting Your Mower

- Attach spark plug wire to spark plug. Make certain the metal cap on the end of the spark plug wire is fastened securely over the metal tip on the spark plug.
- Check for proper drive clutch operation using the NEUTRAL ADJUSTMENT TEST.

Neutral Adjustment Test

To perform the neutral adjustment test answer the following questions.

- With the drive clutch control released, push mower forward and pull it backward. Does it move freely?

- Squeeze the drive clutch control and pull the mower backward. Do the rear wheels lock?
- Is the drive clutch control cable free of kinks or sharp bends?
- If you answered “yes” to all three questions, your mower passed the test and you can start your mower.
- If you answered “no” to any of the three questions, you will have to adjust the drive clutch control in the ADJUSTMENT SECTION.

Starting Engine

- Prime engine as instructed in the separate engine manual packed with your unit.
- Your lawn mower may be equipped with a constant speed throttle, which is set at full throttle for best performance.
- Stand behind the mower and squeeze the blade control handle against the upper handle.
- Grasp recoil starter handle and pull rope out slowly until engine reaches the start of compression cycle (rope will pull slightly harder at this point). Let the rope rewind slowly. Pull rope with a rapid, continuous, full arm stroke. Keeping a firm grip on the starter handle, let the rope return to the starter slowly.

Using Your Lawn Mower

Be sure that the lawn is clear of stones, sticks, wire, or other objects which could damage the lawn mower or the engine. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.

For best results, do not cut wet grass because it tends to stick to the underside of the mower, preventing proper discharge of grass clippings, and could cause you to slip and fall. New grass, thick grass, or wet grass may require a narrower cut.

For a healthier lawn, never cut off more than one-third of the total length of the grass. Your lawn should be cut in the fall as long as there is growth. This mower is designed to be operated at full throttle to give you the best cut and do the most effective job of mowing or mulching.



WARNING: If you strike a foreign object, stop the engine. Remove wire from the spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower. Extensive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

Mulching

For effective mulching, do not cut wet grass because it tends to stick to the underside of the deck, preventing proper mulching of grass clippings. New or thick grass may require a narrower cut. The ground speed should be adjusted to the condition of the lawn. If mowing has been delayed and the grass has been allowed to grow in excess of 4", mulching is not recommended. Mow using the grass bag to reduce the grass height to 3 1/4" maximum before mulching.

Attaching The Grass Bag

- Remove wing nuts holding the mulching baffle or side discharge chute in place and remove from unit.
- Replace with grass bag adapter, while making sure the inner lip of attachment goes under the edge of the deck. Secure with wing nuts previously removed. See Figure 7.

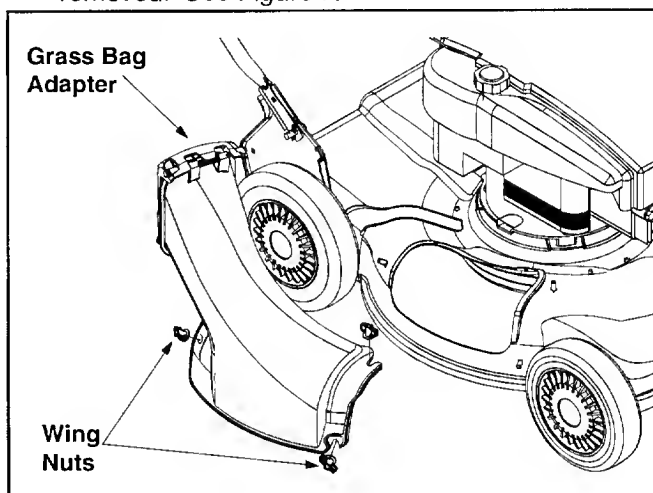


Figure 7

- Lift chute door on the grass bag adapter and slide grass bag onto the adapter. See Figure 8.

NOTE: The chute door has been designed to move the starter rope out of the way of the bag when the chute door is opened.

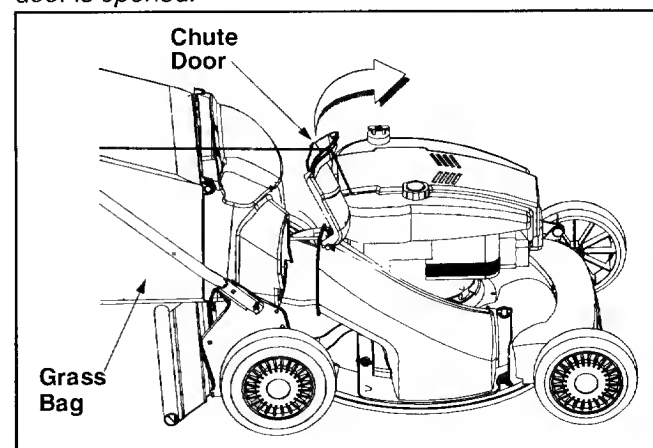


Figure 8

Emptying the Grass Bag

- While holding the grass bag by both the rear handle and the lower handle, lift the grass bag straight up off the adapter. The chute door will move the rope out of the way of the bag.
- Continue to hold the lower handle and raise the rear of the grass bag up toward your chest. The grass bag will open and the grass clippings will disperse. See Figure 9.
- When replacing the grass bag, be sure the top of the bag rests on the wire support between the handles.

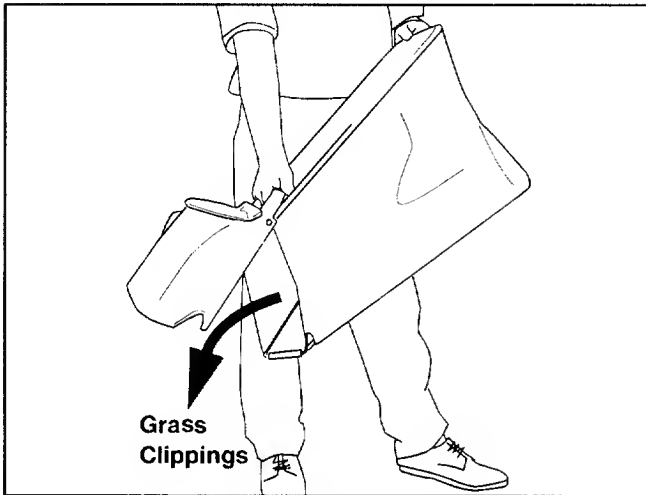


Figure 9

Attaching Side Discharge Chute

- Remove mulching baffle or grass bag adapter from unit by disconnecting wing nuts.
- Attach side discharge chute to unit and secure with wing nuts. See Figure 10.

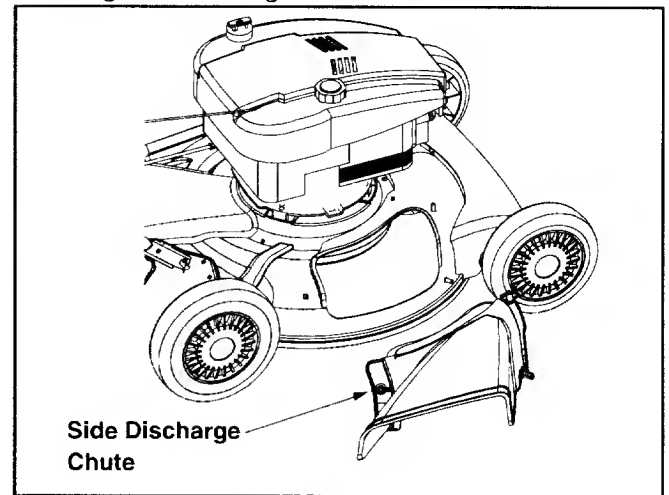


Figure 10

SECTION 6: MAKING ADJUSTMENTS



WARNING: Do not at any time make any adjustments without first stopping engine and disconnecting spark plug wire.

Cutting Height Adjustment

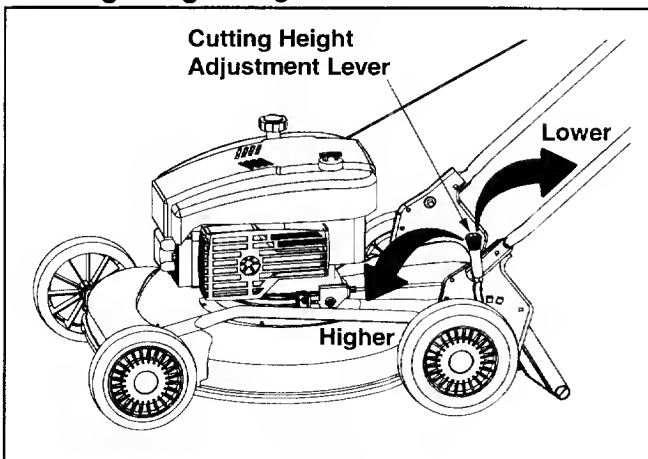


Figure 11

Your mower is shipped with the cutting height in the lowest position. The cutting height adjustment lever is located above the left rear wheel. To adjust the cutting height, pull the lever out and away from the mower and then move it forward or backward to select a new cutting height. See Figure 11.

NOTE: For rough or uneven lawns, move the height adjustment lever to a higher position. This will help stop scalping.

Handle Height Adjustment

Your mower is shipped with the handle in the higher height position. To lower the height proceed as follows:

- Remove the starter rope from the rope guide.
- Remove the upper handle by removing the hand knobs and carriage bolts. Lay the upper handle out of the way, being careful not to bend or kink the cables.
- Remove the hairpin clips from the weld pins on the handle brackets. Press out on the legs of the lower handle. Remove lower handle from the mower.

- Turn lower handle around so the notch on the bottom of the lower handle is facing forward. Reassemble, placing the bottom holes in the handle over the weld pins in the handle mounting bracket. See Figure 12.
- Reassemble the upper handle to the lower handle.
- Place the hairpin clips in the inner holes in the weld pins and attach the starter rope as instructed in the Assembly Section.

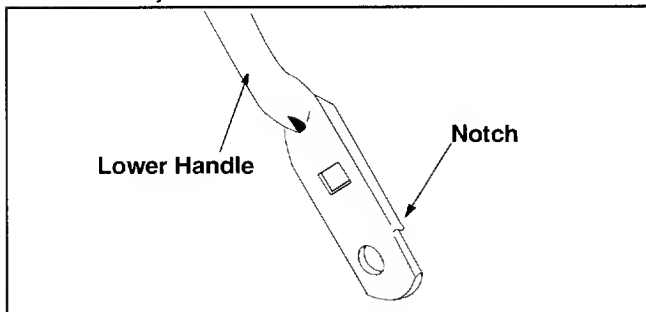


Figure 12

Drive Clutch Control Adjustment

The drive clutch control adjustment wheel is located in the drive clutch control handle housing and is used to tighten or loosen the drive belt. You will have to adjust the drive clutch control if any of the following happens:

- The mower does not propel itself with the drive clutch engaged.
- The mower's drive wheels hesitate with the drive clutch engaged.

To resolve the above problems, rotate the adjustment wheel with your fingers. Clockwise to tighten the cable and counter-clockwise to loosen the cable. See Figure 13.

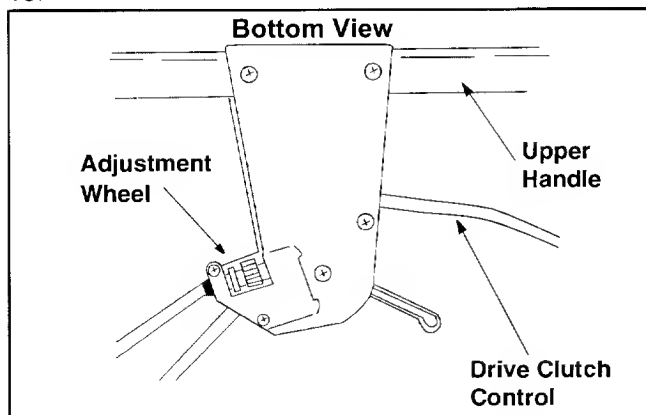


Figure 13

NOTE: For some people the drive clutch control may not be in a comfortable position. You can adjust the handle out by tightening the adjustment wheel.

Shift Lever Cable Adjustment

Periodic adjustment of the six speed shift cable may be required due to normal wear on the cable. Adjustment is needed if all six speeds do not work.

The adjustable cable bracket is located on the left side of the mower beside the engine.

- Start engine and place speed control lever in the sixth speed position. See Figure 14.

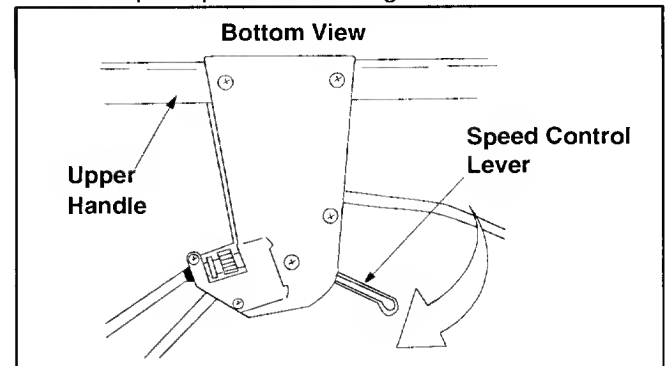


Figure 14

- Stop engine and disconnect spark plug wire and ground it against engine.
- Loosen hex nut which secures the adjustable cable bracket. See Figure 15.
- Push back on the adjustable cable bracket and tighten hex nut.

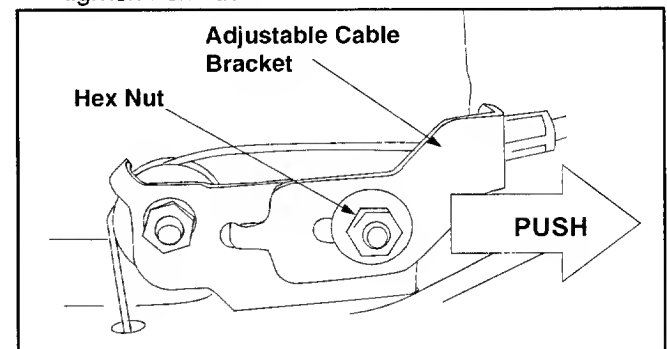


Figure 15

SECTION 7: MAINTAINING YOUR LAWN MOWER

General Recommendations

- Always observe safety rules when performing any maintenance.
- The warranty on this lawn mower does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain the lawn mower as instructed in this manual.
- Changing of engine governed speed will void engine warranty.
- Some adjustments will have to be made periodically to maintain your unit properly. All adjustments in the Making Adjustments section of this manual should be checked at least once each season.
- Periodically check all fasteners and make sure these are tight.
- Follow the maintenance schedule under Customer Responsibilities to get quality performance from your lawn mower.

Customer Responsibilities

MAINTENANCE SCHEDULE		After each use	Every 25 hours	Every 50 hours	Every 100 hours	Once a season	Before storage	SERVICE DATES			
PRODUCT	Lubricate wheels					✓					
	Lubricate blade control					✓					
	Clean deck	✓					✓				
	Blade care		✓				✓				
ENGINE	Change oil		✓				✓				
	Replace air filter				✓						
	Clean engine	✓					✓				
	Check spark plug			✓		✓					
	Check spark arrester (if any)			✓							

Lubrication



WARNING: Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of service work on the lawn mower.

Blade Control: Lubricate the pivot points on the blade control handle at least once a season with light oil. The blade control must operate freely in both directions. See Figure 16.

Wheels: Lubricate the wheels at least once a season with light oil (or motor oil). If the wheels are removed for any reason, lubricate the surface of the axle bolt and inner surface of the wheel with light oil. See Figure 16.

Engine: Follow the separate engine manual packed with you unit for lubrication instructions.

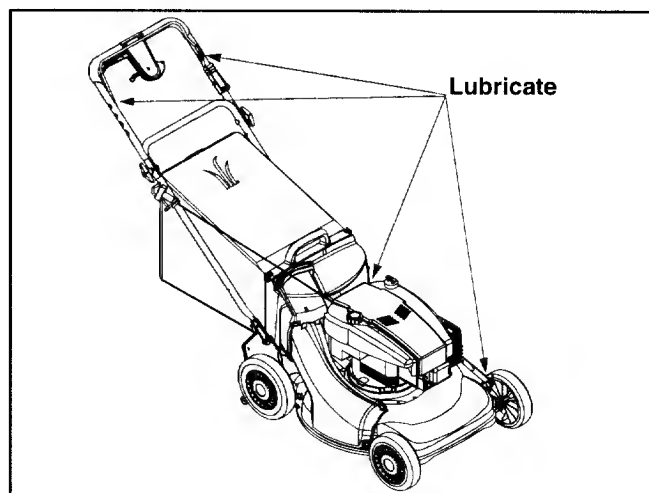


Figure 16

Maintenance

NOTE: When tipping the unit, empty the fuel tank and keep the spark plug side of engine up. Never tip the mower more than 90 degrees and do not leave the mower tipped for any length of time. Oil can drain into the upper part of the engine causing a starting problem.

Engine

Refer to the separate engine manual for all engine maintenance instructions.

- Maintain engine oil as instructed in the separate engine manual packed with your unit.
- Service air cleaner every 25 hours under normal conditions. Poor engine performance and flooding usually indicate that the air cleaner should be serviced. To service the air cleaner, refer to the separate engine manual packed with your unit.
- The spark plug should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each mowing season.
- Clean the engine regularly with a cloth or brush. Keep the cooling system (blower housing area) clean to permit proper air circulation which is essential to engine performance and life. Be certain to remove all grass, dirt, and combustible debris from muffler area.

Deck

The underside of the mower deck should be cleaned after each use to prevent a buildup of grass clippings, leaves, dirt, or other matter. If this debris is allowed to accumulate, it will invite rust and corrosion, and may prevent proper mulching, discharge, or bagging. The deck may be cleaned by tilting the mower and scraping clean with a suitable tool (make certain the spark plug wire is disconnected).

IMPORTANT: We do not recommend the use of a pressure washer or garden hose to clean your unit. The use of water will result in shorten life and reduce serviceability.

Cutting Blade Removal, Replacement, and Sharpening

- When removing the cutting blade for sharpening or replacement, protect your hands with a pair of heavy gloves or use a heavy rag to hold the blade.
- Remove the bolt and the blade bell support which hold the blade and the blade adapter to the engine crankshaft. See Figure 17.
- Remove the blade and the adapter from the crankshaft.



WARNING: Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.

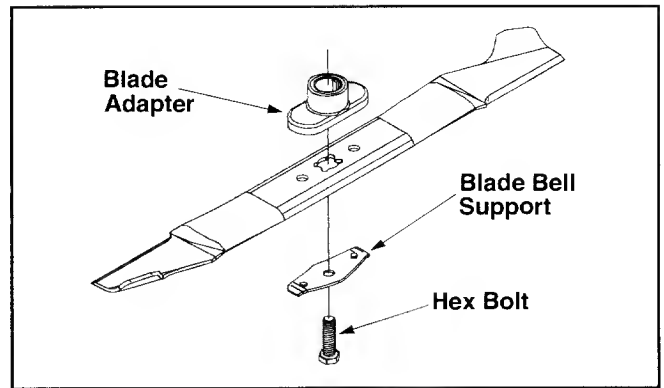


Figure 17



WARNING: Periodically inspect the blade adapter for cracks, especially if you strike a foreign object. Replace when necessary.

When sharpening the blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds. It may cause damage to the mower, and could break causing personal injury.

The blade can be tested by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly. It is recommended that the blade always be removed from the adapter when testing for balance. Before reinstalling the blade and the blade adapter to the unit, lubricate the engine crankshaft and the inner surface of the blade adapter with light oil.

- Be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position.
- Slide the blade adapter onto the engine crankshaft.
- Place the blade on the adapter. Be certain the blade is aligned and seated on the blade adapter flanges.
- Place blade bell support on blade. Make sure the notches on the blade bell support are aligned with small holes in the blade.
- Replace hex bolt and tighten hex bolt to torque: 450 in. lbs. min., 600 in. lbs. max.

NOTE: To ensure safe operation of your mower, the blade bolt must be checked periodically for correct torque.

Drive Belt Removal and Replacement

- Disconnect the spark plug wire and ground it against the engine.
- Drain the fuel tank or place a piece of plastic beneath the cap to prevent gasoline leakage.
- Place shift lever in the first position and tip the mower on its side.

- Remove the center bolt which secures the blade to the crankshaft followed by blade bell support, blade, and blade adapter.
- Move the cutting height adjustment to the highest position.
- Remove the three hex screws holding the baffle to the deck and pivot baffle towards the rear of the mower. See Figure 18.

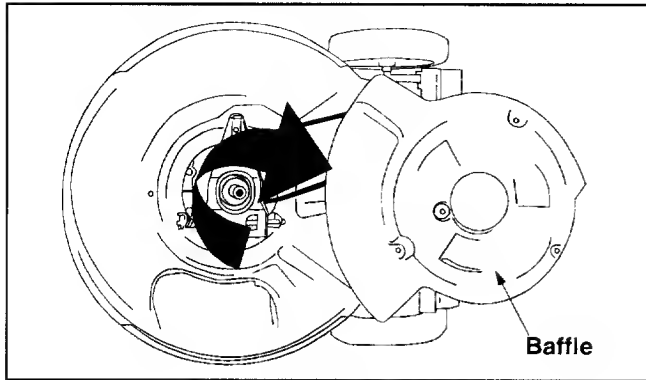


Figure 18

- Remove the hex bolt from the rear of unit holding the transmission to the mower housing. See Figure 19.

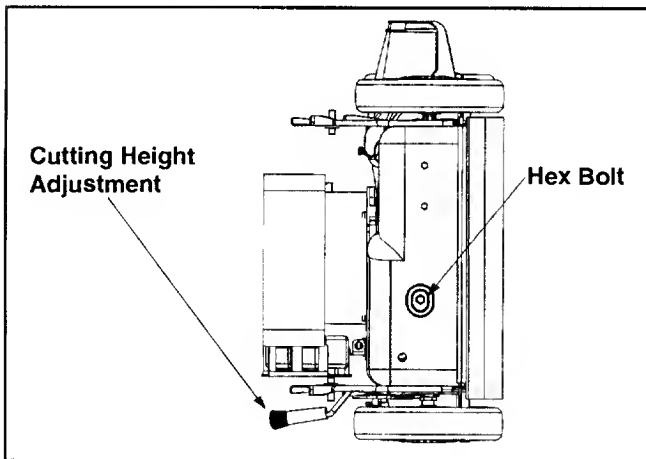


Figure 19

- Tilt the transmission forward and loosen the idler pulley bolt and lock nut half a turn. See Figure 20.
- Using a pair of pliers, pull back and rotate belt keeper bracket from the slot on the idler pulley.
- Slide the belt out from between the belt keeper bracket and the idler pulley.
- Squeeze the belt together and push it forward, while pressing the control arm inward towards the deck and remove the six speed cable from the slot. See Figure 20.
- Pivot the control arm down away from the pulley and belt.
- Lift off the lower pulley assembly and remove the old belt from around the crankshaft. See Figure 20.

Baffle

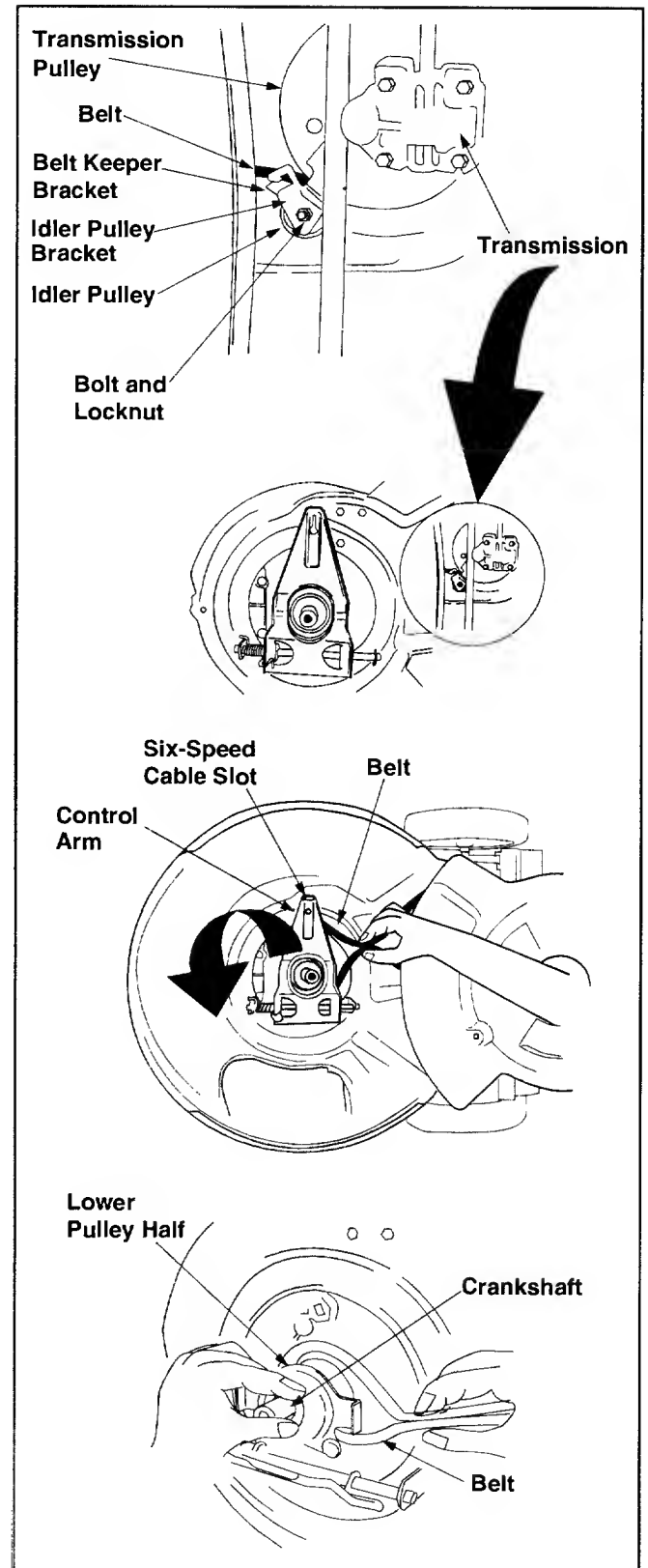


Figure 20

- Place the new belt over the transmission pulley. Start the belt in the pulley groove and rotate the pulley until the belt is seated in the transmission pulley. Refer to Figure 20.
- Place the belt between the idler pulley and the belt keeper bracket.
- Using pliers, rotate the belt keeper bracket so that it snaps into slot on the idler bracket.
- Tighten the idler pulley bolt and lock nut half a turn.
- Place the belt between the two pulley halves on the crankshaft. Make sure to route the belt inside the belt guard pin. See Figure 21.

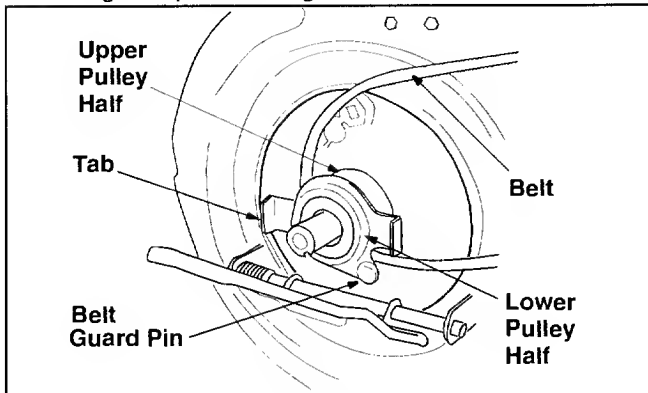


Figure 21

IMPORTANT: When replacing the belt, do not disassemble the lower pulley assembly.

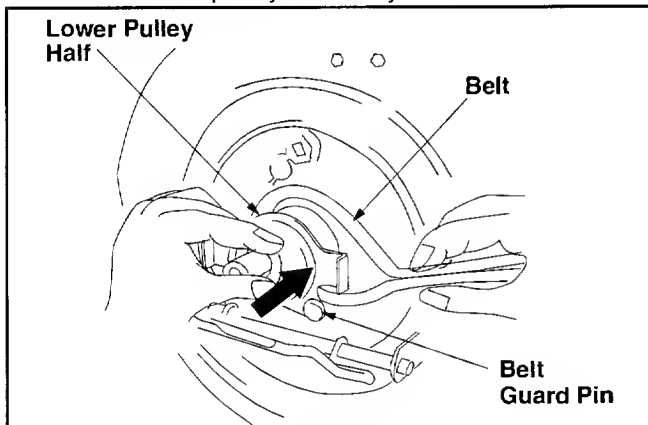


Figure 22

- Pinch both sides of the belt together so that the belt is not in the pulley groove, and the lower pulley can be pushed towards the engine. See Figure 22.
- Pivot the control arm back to its original position and reinstall the six-speed cable into the slot. See Figure 23.
- Check and make sure the belt is routed inside the pulley halves and the belt guard pin.

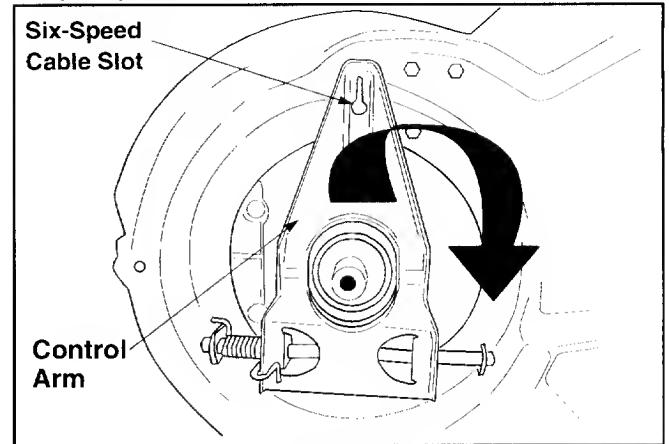


Figure 23

- Reinstall the bolt securing transmission to rear mower housing.
- Pivot the baffle back to its original position and secure with three hex screws earlier removed.
- Lightly lubricate the inside of the blade adapter and reinstall the spacer, wave washer, blade adapter assembly, and blade in the correct order.
- Tighten the hex bolt to secure the blade to torque: 450-600 in. lbs.

SECTION 8: STORING YOUR LAWN MOWER

The following steps should be taken to prepare your lawn mower for storage.

- Clean and lubricate mower thoroughly as described in the lubrication instructions.

IMPORTANT: We do not recommend the use of a pressure washer or garden hose to clean your unit. The use of water will result in shorten life and reduce serviceability.

- Refer to engine manual for correct engine storage instructions.

- Coat mower's cutting blade with chassis grease to prevent rusting.
- Store mower in a dry, clean area. Do not store next to corrosive materials, such as fertilizer.

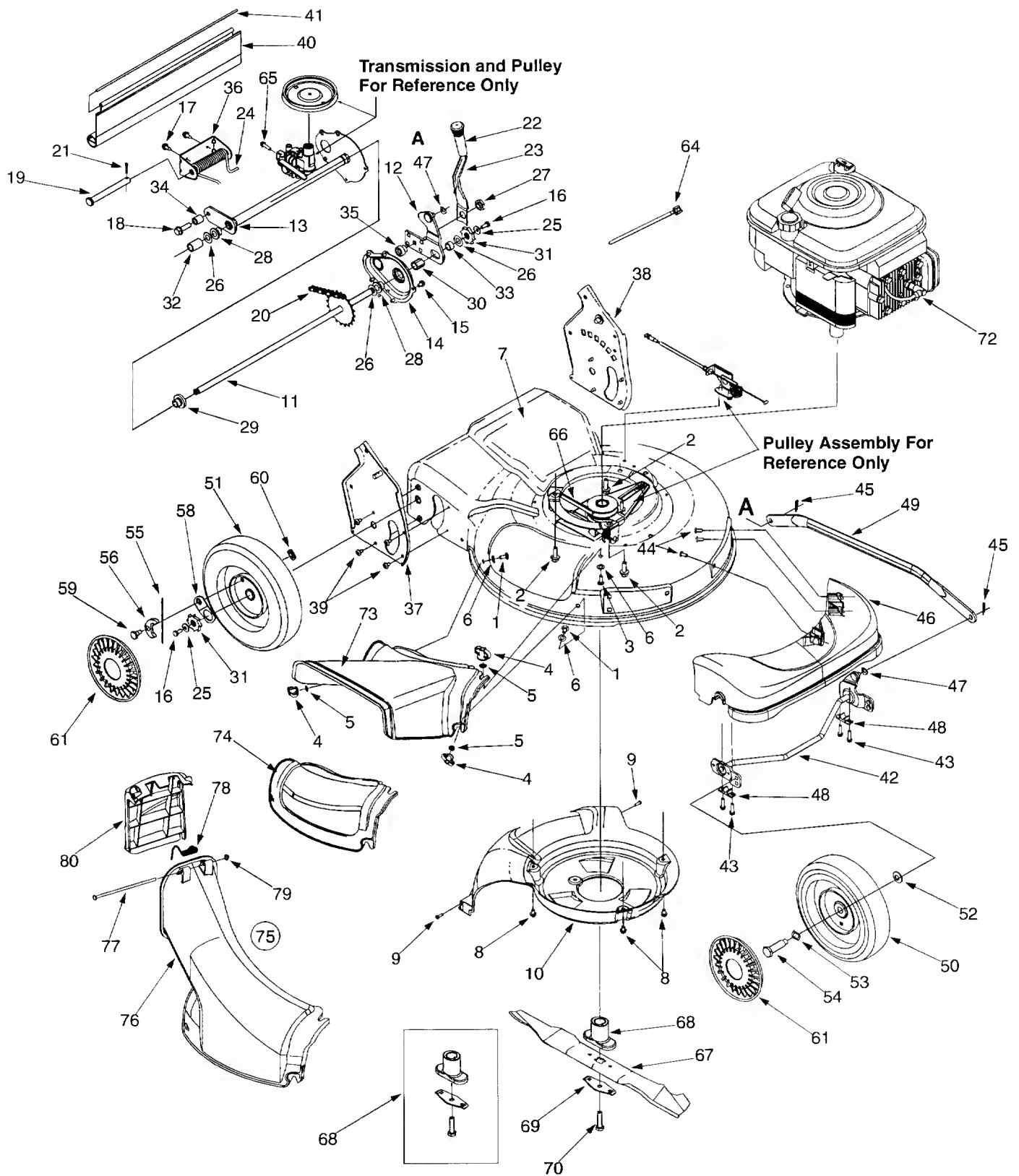
NOTE: When storing any type of power equipment in a poorly ventilated or metal storage shed, care should be taken to rust-proof the equipment. Using a light oil or silicone, coat the equipment, especially cables and all moving parts.

SECTION 9: TROUBLESHOOTING

Problem	Cause	Remedy
Engine fails to start	<ol style="list-style-type: none"> 1. Blade control handle disengaged. 2. Spark plug wire disconnected. 3. Fuel tank empty or stale fuel. 4. Blocked fuel line. 5. Faulty spark plug. 6. Engine flooded 	<ol style="list-style-type: none"> 1. Engage blade control handle. 2. Connect wire to spark plug. 3. Fill tank with clean, fresh gasoline. 4. Clean fuel line. 5. Clean, adjust gap, or replace. 6. Crank engine with throttle in FAST position.
Engine runs erratic	<ol style="list-style-type: none"> 1. Spark plug wire loose. 2. Blocked fuel line or stale fuel. 3. Vent in gas plugged. 4. Water or dirt in fuel system. 5. Dirty air cleaner. 6. Carburetor out of adjustment. 	<ol style="list-style-type: none"> 1. Connect and tighten spark plug wire. 2. Clean fuel line; fill tank with clean, fresh gasoline 3. Clear vent. 4. Drain fuel tank. Refill with fresh fuel. 5. Clean air cleaner. 6. Adjust carburetor.
Engine overheats	<ol style="list-style-type: none"> 1. Engine oil level low. 2. Air flow restricted. 3. Carburetor not adjusted properly. 	<ol style="list-style-type: none"> 1. Fill crankcase with proper oil. 2. Remove blower housing and clean. 3. Adjust carburetor.
Occasional skip (hesitates) at high speed	<ol style="list-style-type: none"> 1. Spark plug gap too close. 	<ol style="list-style-type: none"> 1. Adjust gap to .030".
Idles poorly	<ol style="list-style-type: none"> 1. Spark plug fouled, faulty or gap too wide. 2. Carburetor improperly adjusted. 3. Dirty air cleaner. 	<ol style="list-style-type: none"> 1. Reset gap to .030" or replace spark plug. 2. Adjust carburetor. 3. Clean air cleaner.
Excessive vibration	<ol style="list-style-type: none"> 1. Cutting blade loose or unbalanced. 2. Bent cutting blade. 	<ol style="list-style-type: none"> 1. Tighten blade and adapter. Balance blade. 2. Replace blade.
Mower will not mulch grass	<ol style="list-style-type: none"> 1. Engine speed too low. 2. Wet grass. 3. Excessively high grass. 4. Dull blade. 	<ol style="list-style-type: none"> 1. Set throttle between 3/4 and full throttle. 2. Do not mow when grass is wet; wait until later to cut. 3. Mow once at a high cutting height, then mow again at desired height or make a narrower cutting path. 4. Sharpen or replace blade.
Uneven cut	<ol style="list-style-type: none"> 1. Wheels not positioned correctly. 2. Dull blade. 	<ol style="list-style-type: none"> 1. Place all four wheels in same height position. 2. Sharpen or replace blade.

NOTE: For repairs beyond the minor adjustments listed above, contact your nearest authorized service dealer.

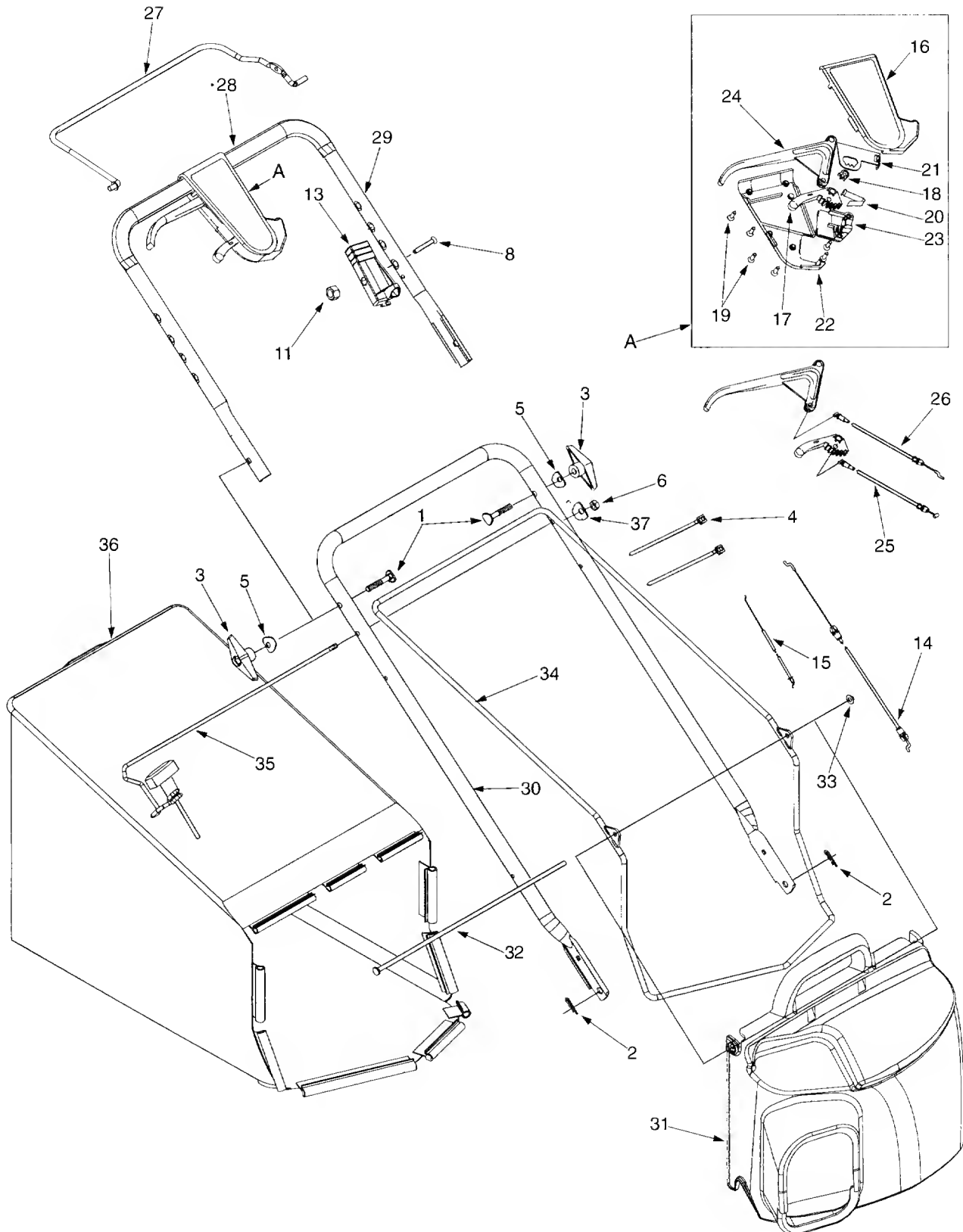
Model 979



Model 979

Ref. No.	Part No.	Part Description	Ref. No.	Part No.	Part Description
1.	710-0134	Carriage Screw 1/4-20 x .62	41.	732-0842	Trail Shield Wire
2.	710-0654A	Scr. TT:3/8-18:1.00	42.	611-0064	Fr. Axle Ass'y.
3.	710-0703	Scr. 1/4-20 x .750	43.	710-1241	Hx Scr. Wash Hd. Hi.-Lo.
4.	712-0397	Wing Nut 1/4-20	44.	710-1242	Scr. Torx, Truss Hi.-Lo.
5.	723-0233	Nut, Push .25 I.D. x .50 O.D.	45.	714-0104	Cotter Pin .072 x 1.12 Lg.
6.	736-0204	Wash. Fl. .334 I.D.x .62 x.03	46.	731-1829	Fr. Axle Cover, Yellow
7.	782-0078A	Deck - 21"	47.	736-0286	Bowed Washer
8.	710-0653	Scr. TT. 1/4-20 x .375	48.	741-0492A	Bush. Block .505 Dia. x .62
9.	710-0969	Scr. HL. 1/2-14 x .750	49.	782-0565	Control Arm
10.	731-1828	Baffle	50.	734-1978	Wheel 8 x 2 Link, Yellow
11.	638-0012	Rear Axle Ass'y	51.	734-1981	Wheel 9 x 2 Link Yellow, Slv.
12.	682-0531	Pivot Arm Ass'y	52.	736-0105	Spr. Wash. .401 x .870 x .063
13.	682-7526	Trans. Axle Ass'y	53.	736-0504	Wave Wash .510 x .750 x .017
14.	682-7528	Chain Cover Ass'y	54.	738-0102	Shldr Scr .498 x 1.445 x3/8-16
15.	710-0653	Scr. TT 1/4-20 x .375	55.	10622B	Spring, Ratchet, Plastic
16.	710-0751	Cap Screw HH 1/4-20 x .620	56.	748-0381	Pawl - R.H.
17.	710-0896	Scr. AB 1/4-14 x .625	57.	748-0188B	Pawl - L.H. (Not Illustrated)
18.	710-1315	Scr. 3/8 116 x .25	58.	16855	Ratchet Pawl Plate
19.	711-0835	Clevis Pin .50 Dia. x 4.82 Lg.	59.	738-0137A	Scr. Shld. .340 x .285
20.	713-0453	Chain-Endls. #48 .500P x 24L	60.	712-0414	Top Lock Tab Weld Nut 1/4-20
21.	714-0474	Cotter Pin .125O.D. x .75	61.	731-1426	Hubcap -Yellow
22.	720-0223	Grip	62.	710-1237	Screw .620 Hx. Slit. Wsh.
23.	732-0803A	Spring Lever	63.	751B213146	Casing Clamp, Throttle
24.	732-0832	Torsion Spring	64.	725-0157	Cable Tie
25.	736-0270	Bell Wash. .285 x .75 x .082	65.	710-0604	Hex Scr. 5/16-18
26.	736-0369	Fl. Wash..508 I.D. 1.000 x.020	66.	754-0460	V-Belt
27.	738-0529	Nut Shld. .825 Dia. x .165 Lg.	67.	742-0741	21" Mulching Blade
28.	741-0324	Hx.Flg. Brg..506 I.D. x .590 L.	68.	753-0609	Blade Adapter Kit
29.	741-0522	Hx.Flg. Brg. .506 I.D. x.715 L.	69.	736-0524A	Blade Bell Suport
30.	741-0978	Hx. Slv. Brg..504 I.D. x .830 L.	70.	710-1257	Hex Bolt 3/8-24x2.5"Lg.
31.	748-0318	Wheel Rachet	72.	735-0639	Spark Plug Insulator
32.	750-0151	Spa. .550 I.D. x /750 O.D.	73.	731-1832	Side Discharge Chute
33.	750-0515	Spa. .51 .D. x .70 O.D. x 38 L.	74.	731-1833	Mulch Cover
34.	750-0807	Spa. .385 x .624 x .700	75.	631-0066	Rear Chute Ass'y w/ Door
35.	750-1056	Shld. Spa. .385 I.D. X .715 Lg.	76.	731-1713A	Discharge Chute
36.	782-0568	Brkt. - Ht. Adj. Spring	77.	747-0965	Pivot Rod
37.	682-3052	Handle Brkt. Ass'y. R.H.	78.	732-0819	Torsion Spring
38.	682-3053	Handle Brkt. Ass'y. L.H.	79.	726-0111	Push Cap
39.	710-1348	Scr. AB 1/4-14 x .500	80.	731-1874	Chute Door
40.	731-1901	Trail Shield			

Model 979



Model 979

Ref. No.	Part No.	Part Description	Ref. No.	Part No.	Part Description
1.	710-1174	Bolt Cur. Carr. 5/16-18 x 2.0	22.	731-0905A	Lower Control Housing
2.	714-0104	Cotter Pin .072 x 1.12 Lg.	23.	731-0906	Cable Mounting Cap
3.	720-0241	Knob Ass'y Wingnut 5/16-18	24.	731-0620	Control Lever
4.	726-0240	Strap 4.3 Lg.	25.	746-0939	6 Spd. Cable
5.	736-0451	Wash. Sad. .320 ID x.830 OD	26.	746-0710A	S.P. Cable
6.	712-0429	Hex Nut 5/16	27.	747-0824	Control Handle
8.	710-1270	Oval C-Sunk Screw	28.	720-0294	Foam Grip (2 Reqd.)
11.	712-0324	Nut 1/4-20 Top locknut Insert	29.	749-0439C	Upper Handle
13.	746-0883	Control Housing	30.	749-0907A	Lower Handle
14.	746-0912	Control Cable 47" Lg.	31.	631-0071	Grassbag Cover w/Label
16.	731-0904A	Upper Control Housing	32.	747-0939	Pivot Rod
17.	731-0924	6 Speed Shift Lever	33.	726-0106	Cap Nut
18.	713-0397	Gear Insert	34.	747-0937	Frame - Grassbag
19.	710-1667A	C Sunk Tap Screw #10 x .75 L	35.	747-0940A	Rod, Support w/ Rope Guide
20.	732-0627	Shift Lever Spring	36.	664-0074	Grassbag
21.	16864	6 Spd. Rack Cable Brkt.	37.	736-0451	Saddle Washer

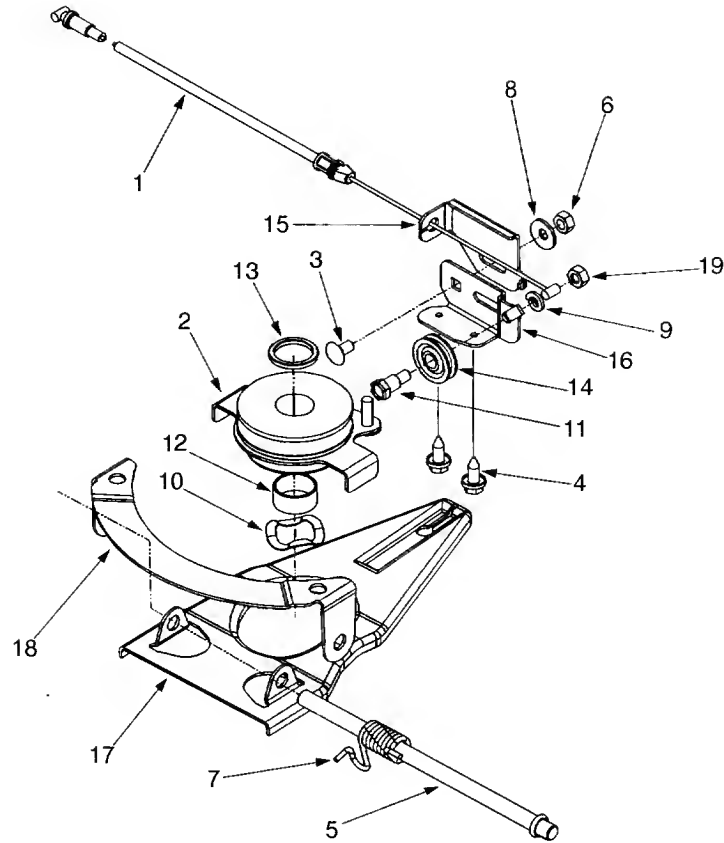
NOTE: For **painted parts**, please refer to the list of color codes below. Please add the applicable color code, wherever needed, to the part number to order a replacement part. For instance, if a part numbered 700-xxxx is painted Yard-Man Green, the part number to order would be 700-xxxx-0665.

Yard-Man Green: 0665

Yard-Man Yellow: 0674

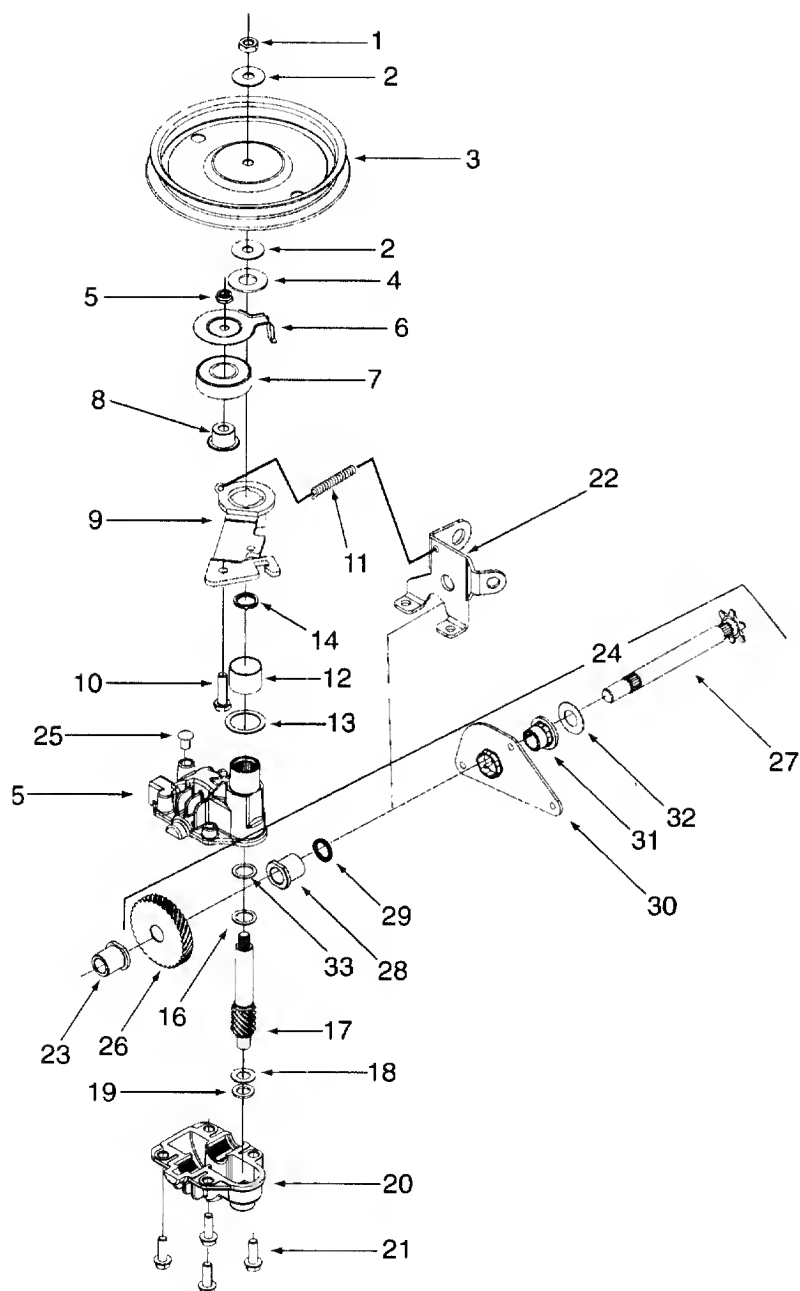
Powder Black: 0637

Model 979



Ref. No.	Part No.	Part Description
1.	746-0939	6 Spd. Cable
2.	656-0613	Pulley Ass'y Multi- Spd.
3.	710-0167	Scr. 1/4-20 x .50 Carr.
4.	710-0896	Scr. AB 1/4-14 x .625 Hxinwsh
5.	711-1114	Pivot Shaft
6.	712-0287	Nut 1/4-20
7.	732-0807	Torsion Spring LH
8.	736-0270	Bell Wash. .265 X .75 X .062
9.	736-0329	Lock Wash. 1/4 Reg Duty
10.	736-0526	Wave Wash. 1.38 x .88 x .029
11.	738-0924	Shld.Scr. .375 x1/4-14AB
12.	750-1070	Slev Spcr .88 IDx1.00 OD x.48
13.	750-1071	Slev Spcr .88ID x1.13ID x .12
14.	756-0625	Roller Cable
15.	782-7574	6 Spd. Cable Adj. Bracket
16.	782-7575	6 Spd. Cable Mt. Bracket
17.	782-7596	6 Sp. Control Arm
18.	782-7597	6 Sp. Pivot Bracket
19.	712-0138	Hex Nut 1/4-28

Model 979



Ref. No.	Part No.	Part Description
1.	712-3025	Hex Jam Nut 5/16-24
2.	736-0425	Bell Washer .325 x .930
3.	756-0656	Pulley
4.	736-3084	Flat Washer .510 x 1.120
5.	712-0896	Hex Jam Nut 1/4-28
6.	782-7598	Belt Keeper
7.	741-0600	Bearing
8.	750-1050	Flange Spacer
9.	682-0027A	Idler Bracket Assembly
10.	710-0299	Hex Cap Screw 1/4-28x 1.0
11.	732-0849A	Extension Spring
12.	741-0682A	Bearing Sleeve
13.	736-0570	Flat Washer .885 x 1.45
14.	721-0329	Oil Seal
15.	618-0253	Upper Housing Assembly
16.	736-0616	Thrust Washer .504 x .70
17.	717-1487	Pinion Shaft 10T
18.	736-0314	Thrust Washer 3/8 x .70
19.	736-0569	Thrust Washer .388 x .625
20.	618-0252	Lower Housing Assembly
21.	710-0642	Hex Screw 1/2-20 x .75
22.	782-7601A	Cable Bracket
23.	741-0674	Bearing
24.	611-0066	Shaft Assembly
25.	721-0325	Plug
26.	717-1469	Gear 34T
27.	711-1168	Output Shaft 6T
28.	741-0672	Flange Bearing
29.	721-0329	Oil Seal
30.	782-7595	Pivot Bracket
31.	741-0324	Flange Bearing
32.	736-0369	Flat Washer .508 ID x 1.0 OD
33.	741-0690	Bearing

MANUFACTURER'S LIMITED WARRANTY FOR:



The limited warranty set forth below is given by MTD PRODUCTS INC ("MTD") with respect to new merchandise purchased and used in the United States, its possessions and territories.

MTD warrants this product against defects in material and workmanship for a period of two (2) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in material or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water or damage because of other peril or natural disaster. Damage resulting from the installation or use of any accessory or attachment not approved by MTD Products Inc. for use with the product(s) covered by this manual will void your warranty as to any resulting damages.

Normal wear parts or components thereof are subject to separate terms as follows: All normal wear part or component failures will be covered on the product for a period of 90 days regardless of cause. After 90 days, but within the two year period, normal wear part failures will be covered **ONLY IF** caused by defects in material or workmanship of **OTHER** component parts. Normal wear parts and components include, but are not limited to, belts, blades, blade adapters, grass bags, rider deck wheels, seats, snow thrower skid shoes, shave plates and tires. Batteries are covered by a 90-day limited replacement warranty.

HOW TO OBTAIN SERVICE: Warranty service is available, **WITH PROOF OF PURCHASE THROUGH YOUR LOCAL AUTHORIZED SERVICE DEALER.** To locate the dealer in your area, please check for a listing in the Yellow Pages or contact the Customer Service Department of MTD PRODUCTS INC by calling 1-800-800-7310 or writing to P.O. Box 368022, Cleveland, Ohio 44136-9722.

This limited warranty does not provide coverage in the following cases:

- a. The engine or component parts thereof. These items carry a separate manufacturer's warranty. Please refer to the applicable manufacturer's warranty on these items.
- b. Log splitter pumps, valves and cylinders have a separate one year warranty.

c. Routine maintenance items such as lubricants, filters, blade sharpening and tune-ups, or adjustments such as brake adjustments, clutch adjustments or deck adjustments; and normal deterioration of the exterior finish due to use or exposure.

d. MTD does not extend any warranty for products sold or exported outside of the United States of America, its possessions and territories, except those sold through MTD's authorized channels of export distribution.

No implied warranty, including any implied warranty of merchantability or fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty or guaranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product shall bind MTD. During the period of the Warranty, the exclusive remedy is repair or replacement of the product as set forth above. (Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.)

The provisions as set forth in this Warranty provide the sole and exclusive remedy arising from the sales. MTD shall not be liable for incidental or consequential loss or damages including, without limitation, expenses incurred for substitute or replacement lawn care services, for transportation or for related expenses, or for rental expenses to temporarily replace a warranted product. (Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.)

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. Alteration of the safety features of the product shall void this Warranty. You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the use or misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser, original lessee or the person for whom it was purchased as a gift.

How State Law Relates to this Warranty: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.